



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,774	09/10/2003	Henry Haverinen	944-001.090-1	4877

4955 7590 12/13/2007  
WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP  
BRADFORD GREEN, BUILDING 5  
755 MAIN STREET, P O BOX 224  
MONROE, CT 06468

EXAMINER
----------

DAILEY, THOMAS J

ART UNIT	PAPER NUMBER
----------	--------------

2152

MAIL DATE	DELIVERY MODE
-----------	---------------

12/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/659,774

Applicant(s)

HAVERINEN ET AL.

Examiner

Thomas J. Dailey

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7,9,10 and 12-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 6-7, 9-10, and 12-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 2, 5, 8, and 11 were cancelled by the amendment filed on September 28, 2007.
2. Claims 1, 3-4, 6-7, 9-10, and 12-23 are pending.

### ***Response to Arguments***

3. The applicants arguments with respect to the objections directed at claims 1 and 9 (Office Action dated June 4, 2007, paragraph 3) are persuasive and the objections are hereby withdrawn.
4. The applicant argues with respect to the 35 USC § 101 and 35 USC § 112 2<sup>nd</sup> paragraph rejections directed at claims 1-3 (paragraphs 7 and 12 of previous Office Action) that claim 1 is clearly directed to a process.
5. The examiner disagrees. Claim 1 recites, "A method, comprising..." (line 1) and recites elements that have actions preformed upon them, e.g. "a first authentication server and other authentication servers each receiving respective unique realm names." A method or a process is a series of steps or actions, thus making it unclear, with respect to claim 1, how a method can be defined as a list of elements. How can a method *comprise* elements? A method or process claim may refer to elements, but such a claim comprises steps that interact with the elements. For example, in order for claim 1 to comply with 35 USC § 101, it

would need to recite something along the lines of “A method comprising:  
receiving respective unique realm names at each of a first authentication server  
and other authentication servers...” Therefore, these rejections have been  
maintained and are repeated below.

6. The applicant argues with respect to the 35 USC § 101 rejections directed claims 18-19 that that it would be obvious to one of ordinary skill in the art that the claims are directed to elements of an electronic device, elements that can be implemented as instructions executable by a processor and stored on a processor-readable storage structure, or as application- specific integrated circuits.
7. The examiner disagrees. As the applicant has pointed out, “the elements that can be implemented as instructions executable by a processor and stored on a processor-readable storage structure, or as application- specific integrated circuits.” Simply, because the elements (“instructions”) can be implemented... and stored does not necessarily mean the elements (“instructions”) are stored, and as the claims do not explicitly state that they are, given the broadest reasonable interpretation, the claims are directed to functionally descriptive material that is not embodied on a computer system or computer readable storage medium which is non-statutory. Therefore, these rejections have been maintained and are repeated below.

8. The applicant argues with respect to the 35 USC § 112 2<sup>nd</sup> paragraph rejections directed at claims 10 and 12 (paragraphs 15-17 of the previous Office Action) that claims 10 and 12 are clearly dependent claims.
9. The examiner disagrees. 35 USC § 112 4<sup>th</sup> paragraph provides, "a claim in dependent form shall contain a reference to a claim previously set forth **and then specify a further limitation of the subject matter claimed.**" It is unclear how claims 10 and 12 specify further limitations of the claims from which they depend (claims 4 and 6). Claims 4 and 6 recite an authentication server; claims 10 and 12 do not recite further limitations of an authentication server (i.e. they do not recite elements of an authentication server, but rather authentication servers in specified environments). Therefore, these rejections have been maintained and are repeated below.
10. The applicant argues with respect to the independent claims 1, 4, 7, 13, 15, 20, and 22 that Cheng (US Pat. No. 5,544,322) does not teach receiving a request for reauthentication.
11. The examiner disagrees. Cheng discloses authentication via an authentication server (column 5, lines 31-35) and a subsequent application request to an application server which includes an authentication certificate (column 5, lines

43-52, i.e. the client is reauthenticated by the application server). The examiner additionally, apologizes for the typographical error in the rejections of claims 2, 5, 8, and 16 of the previous Office action (paragraph 28). The examiner cited column 4, lines 43-47, but intended to cite **column 5, lines 43-47** as was done previously with synonymous limitations in claim 13.

12. The applicant further argues with respect to claims 18 and 19 that Limsico (US Pat. 6,662,228) fails teach a request for reauthentication.

13. The examiner disagrees. Limsico discloses a previously authenticated user attempting authentication through a local authentication server which forwards the request to a second authentication server (column 6, lines 12-27, the second authentication server is the server that has previously authenticated the user).

14. Additionally, 35 USC § 112 2<sup>nd</sup> paragraph rejections presented in this Office action were necessitated by amendment.

***Claim Rejections - 35 USC § 101***

15. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. Claims 1, 3 and 18-19 are rejected under 35 U.S.C. because the claimed invention is directed to non-statutory subject matter.

17. Claim 1 recites, "A method, comprising..." (line 1) and recites limitations that are not steps such as, "a first authentication server and other authentication servers each receiving respective unique realm names." (lines 4-5) As the claim is directed to a method with system claim limitations, the claim is directed to neither a "process" nor a "machine," but rather overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only.

18. Claim 3 is rejected by the same rationale set forth in claim 1's rejection.

19. Claims 18-19 recite, "An authentication network element, comprising..." and all the limitations are software elements (determining and preparing means). Therefore the claims are directed to functionally descriptive material that is not embodied on a computer system or computer readable storage medium which is non-statutory.

***Claim Rejections - 35 USC § 112***

20. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

21. Claims 1, 3, 10, and 12, rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

22. Claim 1 recites, "A method, comprising..." (line 1) and recites limitations that are not steps such as, "a first authentication server and other authentication servers each receiving respective unique realm names." (lines 4-5) It is unclear how a method can comprise limitations that are not steps, but system components. A method or a process is a series of steps or actions, thus making it unclear, with respect to claim 1, how a method can be defined as a list of elements. How can a method *comprise* elements? A method or process claim may refer to elements, but such a claim comprises steps that interact with the elements.

23. Claim 3 is rejected by the same rationale set forth in claim 1's rejection.

24. Claim 1 recites, "the authentication network element determining the unique realm name indicating the authentication server that performed the full authentication by the authentication network element from the reauthentication identity included in the request for reauthentication" (lines 14-18). The statement is difficult to interpret as there are grammatical errors, the examiner can only assume it should read something along the lines of, "the authentication network



element determining the unique realm name ***which indicates*** the authentication server that performed the full authentication from the reauthentication identity included in the request for reauthentication” (“by the authentication network element” was also removed from the quotation) and the examiner will interpret the claim as such.

25. Claim 1 recites, “the full authentication.” This lacks antecedent basis in the claim.

26. Claim 10, recites, “wherein at least two of the authentication servers are as in claim 4” (line 7) it is unclear whether the claim is an independent system claim or is a dependent claim furthering limiting the apparatus claim of claim 4. 35 USC § 112 4<sup>th</sup> paragraph provides, “a claim in dependent form shall contain a reference to a claim previously set forth **and then specify a further limitation of the subject matter claimed.**” It is unclear how claim 10 specifies further limitations of the claim from which it depend (claim 4). Claim 4 recites an authentication server; claim 10 does not recite further limitations of an authentication server (i.e. it does not recite elements of an authentication server, but rather authentication servers in a specified environment).

27. Claim 12, recites, “wherein at least two of the authentication servers are as in claim 6” (line 7) it is unclear whether the claim is an independent system claim or

is a dependent claim furthering limiting the apparatus claim of claim 6. 35 USC § 112 4<sup>th</sup> paragraph provides, "a claim in dependent form shall contain a reference to a claim previously set forth **and then specify a further limitation of the subject matter claimed.**" It is unclear how claim 12 specifies further limitations of the claim from which it depend (claim 6). Claim 6 recites an authentication server; claim 12 does not recite further limitations of an authentication server (i.e. it does not recite elements of an authentication server, but rather authentication servers in a specified environment).

### ***Claim Rejections - 35 USC § 102***

28. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

29. Claims 1, 4, 7, 10, 13, 15-16, 20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheng et al (US Pat. 5,544,322), hereafter Cheng.

30. As to claim 1, Cheng discloses a method, comprising:

a first authentication server and other authentication servers each receiving respective unique realm names (column 5, lines 19-24);

the first authentication server receiving a request for authentication of a terminal (column 5, lines 31-35); and

during authentication between the terminal and the first authentication server, the first authentication server transmitting to the terminal a reauthentication identity including the unique realm name assigned to the first authentication server (column 5, lines 36-42, the certificate is "a reauthentication identity" and will inherently identify the authentication server and its unique realm);

an authentication network element receiving a request for reauthentication transmitted by the terminal using the reauthentication identity including the unique realm name (column 5, lines 43-47); and

the authentication network element determining from the reauthentication identity included in the request the unique realm name indicating the authentication server that performed the full authentication by the authentication element from the reauthentication identity included in the request for reauthentication (column 5, lines 43-52).

31. As to claim 4, Cheng discloses an authentication server (column 5, lines 19-24), comprising:

means for performing authentication (column 5, lines 31-35); and

means for transmitting to a terminal requesting authentication a reauthentication identity including a unique realm name uniquely identifying the authentication server (column 5, lines 36-42, the certificate is "a reauthentication identity" and will inherently identify the authentication server and its unique realm),

means for performing reauthentication of the terminal upon receipt of a request for authentication conveying the reauthentication identity including a unique realm name uniquely identifying the authentication server (column 5, lines 43-47); and

means for receiving a request by a terminal for reauthentication, wherein the request includes the reauthentication identity, and for determining from the reauthentication identity the unique realm name included in the request (column 5, lines 43-52).

32. As to claim 7, Cheng discloses a computer program product comprising:

a computer readable storage structure embodying computer program code thereon for execution by a computer processor in an authentication server, wherein said computer program code includes instructions for:

transmitting to a terminal requesting authentication a reauthentication identity including a unique realm name uniquely identifying the authentication server (column 5, lines 36-42, the certificate is "a reauthentication identity" and will inherently identify the authentication server and its unique realm).

receiving a request by a terminal for reauthentication, wherein the request includes the reauthentication identity (column 5, lines 43-47); and  
determining from the reauthentication identity the unique realm name included in the request (column 5, lines 43-52).

33. As to claim 13, Cheng discloses a terminal, comprising:

means for requesting reauthentication of a communication session between the terminal and a content server (column 5, lines 43-46, client reads on terminal and application server reads on content server);

means for receiving from a first authentication server a reauthentication identity including a unique realm name assigned to the first authentication server (column 5, lines 36-42, the certificate is "a reauthentication identity" and will inherently identify the authentication server and its unique realm); and

means for transmitting to an authentication network element a request for reauthentication using the reauthentication identity including the unique realm name (column 5, lines 43-52, authentication library reads on "authentication network element").

34. As to claim 15, it is rejected by the same rationale set forth in claim 4's rejection.

35. As to claims 20 and 22, they are rejected by the same rationale set forth in claim 13's rejection.

36. As to claim 10, Cheng discloses a system, comprising a plurality of terminals, a plurality of authentication servers, and at least one content server (Figs. 1 and 2), the terminals operative so as to request content from the content server after authentication (column 8, lines 48-51) and occasional reauthentication with one or another of the authentication servers, wherein at least two of the authentication servers are as in claim 4 (column 5, lines 31-35).

37. As to claim 16, Cheng discloses determining from the reauthentication identity the unique realm name included in a request in by a terminal for reauthentication, wherein the request includes the reauthentication identity (column 5, lines 43-52).

38. Claims 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Limsico (US Pat. 6,662,228).

39. As to claim 18, Limsico discloses an authentication network element, comprising:  
means for determining from a reauthentication identity included in a request for reauthentication transmitted by a terminal a unique realm name included in the request and uniquely indicating an authentication server (column 6, lines 12-27, the user identification (reauthentication identity) is checked to see if it contains a substring of characters which identifies a second authentication server

(the authentication server recited in the claim) from which the user can be verified); and

means for preparing a message for forwarding the request to the authentication server indicated by the unique realm name (column 6, lines 12-27, the user identification information is sent to the second authentication server).

40. As to claim 19, it is rejected by the same rationale set forth in claim 18's rejection.

***Claim Rejections - 35 USC § 103***

41. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

42. Claims 3, 6, 9, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng as applied to claims 1, 4, 7, and 15 above, and in view of Limsico.

43. As to claim 3, Cheng discloses the invention substantially with regard to the parent claim 1, but does not disclose the authentication network element

forwarding the request to the authentication server indicated by the unique realm name included as part of the reauthentication identity; and the terminal and the authentication server indicated by the unique realm name performing reauthentication.

However, Limsico discloses a authentication network element forwarding a request to a authentication server indicated by a unique realm name included as part of the reauthentication identity (column 6, lines 12-27, the user identification (reauthentication identity) is checked to see if it contains a substring of characters which identifies a second authentication server (the authentication server recited in the claim) to which the user identification information is sent so it can be verified); and the terminal and the authentication server indicated by the unique realm name performing reauthentication (column 6, lines 12-27).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cheng and Limsico in order to have a central repository of authentication information thereby permitting easier removal, replacement, and addition of users to a single database instead of requiring updating separate database (Limsico, column 3, lines 35-43).

44. As to claim 6, 9, and 17, Cheng discloses the invention substantially with regard to the parent claims 4, 7, and 15, and but does not disclose means for forwarding



the request to another authentication server if the unique realm name indicates another authentication server.

However, Limsico discloses means for forwarding the request to another authentication server if the unique realm name indicates the other authentication server (column 6, lines 12-27, the user identification (reauthentication identity) is checked to see if it contains a substring of characters which identifies a second authentication server (the authentication server recited in the claim) to which the user identification information is sent so it can be verified).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cheng and Limsico in order to have a central repository of authentication information thereby permitting easier removal, replacement, and addition of users to a single database instead of requiring updating separate database (Limsico, column 3, lines 35-43).

45. As to claim 12, Cheng and Limsico disclose the invention substantially with regard to the parent claim 6, and further discloses a system, comprising a plurality of terminals, a plurality of authentication servers, and at least one content server (Cheng, Figs. 1 and 2), the terminals operative so as to request content from the content server after authentication (Cheng, column 8, lines 48-51) and occasional reauthentication with one or another of the authentication

servers, wherein at least two of the authentication servers are as in claim 4 (Cheng, column 5, lines 31-35).

46. Claims 14, 21, and 23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng as applied to claims 13, 20, and 22 above, and in view of Barriga-Caceres et al (US Pub No. 2003/0163733), hereafter "Barriga."

47. As to claims 14, 21, and 23, Cheng discloses the invention substantially with regard to the parent claims 13, 20, and 22, and further discloses means for transmitting to an authentication network element a request for reauthentication using the reauthentication identity including the unique realm name includes the reauthentication identity in an identity response packet.

But, Cheng does not disclose the identity response packet is according to an Extensible Authentication Protocol.

However, Barriga discloses an authentication system (Abstract) that utilizes an Extensible Authentication Protocol ([0101]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cheng and Barriga in order to

utilize a well-known protocol in the art that would allow Cheng's system to be compatible with other, already deployed, systems.

### ***Conclusion***

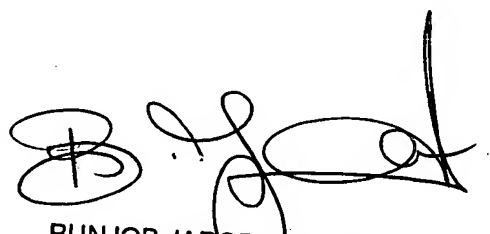
48. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
49. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.
50. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.

51. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

52. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



TJD



BUNJOB JAROENCHONWANIT  
SUPERVISORY PATENT EXAMINER  
12/10/17